

IN THE CLAIMS:

1. (Previously Presented) An sample collection vessel assembly for chromatographic systems, comprising:

a vessel extender, attached to a collection vessel, so that a mobile phase flow stream enters the vessel extender and fills the collection vessel,

wherein the vessel extender provides a volumetric capacity to hold the mobile phase flow stream beyond the volumetric capacity of the collection vessel.

2. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender comprises a mouth at an attachment end of the vessel extender meets a mouth at an attachment end of the collection vessel to provide a flow path for the mobile phase flow stream to enter the collection vessel.

3. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender sealably attaches to the collection vessel with a threaded connection.

4. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel assembly sealably attaches to the collection vessel with an external coupling.

5. (Previously Presented) The collection vessel assembly of claim 4, wherein the

external coupling attaches to an external flange on an attachment end of the vessel extender and attaches to an attachment end of the collection vessel.

6. (Previously Presented) The collection vessel assembly of claim 5, wherein a mouth of the vessel extender extends into the collection vessel until the external flange contacts the mouth the collection vessel.

7. (Previously Presented) The collection vessel assembly of claim 1, further comprising:

a housing, holding the collection vessel within the housing, that attaches to the vessel extender at an attachment end to provide a flow path for the mobile phase flow stream to enter the collection vessel from the vessel extender.

8. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender comprises an attachment end to receive an attachment end of the collection vessel, and

the vessel extender comprises an extended mouth that protrudes into the collection vessel.

9. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender comprises a cylindrical body with a reduced-diameter mouth at an

attachment end that meets a mouth of a collection vessel to form a flow path.

10. (Previously Presented) The collection vessel assembly of claim 1, wherein the vessel extender is fabricated from inert material that is not significantly hydroscopic.

11. (Previously Presented) The collection vessel assembly of claim 10, wherein the fabrication material includes plastic such as one of the following:
polytetrafluoroethylene, polymer, polypropylene, polyethylene, or polyurethane.

12. (Previously Presented) A collection vessel assembly, comprising:
a collection vessel for collecting liquid phase from a chromatographic mobile phase flow stream;

a vessel extender, sealably attached to the collection vessel, such that the vessel extender and collection vessel form a flow path for the liquid phase to flow through the vessel extender and into the collection vessel,

wherein the vessel extender provides volumetric storage capacity for liquid phase beyond the volumetric capacity of the collection vessel.

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